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Comparative Financial Analysis of Leading Waste Water Treatment Plant Construction Companies in Maharashtra

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Abstract: ***Management is always interested in knowing financial strengths of the company to make their best use and to be able to spot out financial weaknesses of the company to take suitable corrective action. The plans of the company are lay down in view of the company's financial strengths and weaknesses. Thus, financial analysis is the starting point for making plans, before using any sophisticated forecasting and planning procedures. Financial management is the vital factor in development of any construction company in any sector. In this paper, how the ratio analysis tool can be used for analysing the financial performance of selective companies from Waste Water Treatment Plant (WWTP) construction industries are focus. The ratio may help to summarize large quantities of financial data and to make qualitative judgement about the company's financial performance. Thus, ratio analysis is an important tool that can boost the performance of company if used in a smarter way.***

Keywords: Financial management; Ratio analysis; WWTP; Financial performance

1. Introduction

Indian construction industry has witnessed drastic changes in the last two decade. With large number of projects involving infrastructure, power generation, water supply, oil and gas projects etc. Indian construction companies have been brought to a level to test their extraordinary management skills, financial management techniques, manpower etc. With huge capital involved in all projects at various stages, the management has to keep an eye on each aspect like assets, liabilities, funds flow, liquidity, profitability, operating expenses etc. It is also important that, while executing management skills, the construction projects taking care of the cost over runs and time delays which is the root cause of the struggling construction sector in the country at present scenario.

India is on the verge of witnessing a sustained growth in infrastructure build up. The construction industry has been witnessing a strong growth wave powered by large spends on housing, road, ports, water supply, rail transport and airport development. While the construction sector's growth has fallen as compared to the pre- 2008 period, it has picked up in the recent past, which is having 11% share in Gross Domestic Product of country (Updated 1st June 2016). Its share as a percentage of GDP has increased considerably as compared to the last decade. To put things in perspective, the total investment in infrastructure - which in this case also includes roads, railways, ports, airports, electricity, telecommunications, oil gas pipelines and irrigation is done, which was made around Rs. 70,000 Crores in the Financial Budget of 2015-16. The Planning Commission of India has proposed an investment of around US$ 1 trillion in the Twelfth five-year plan (2012-2017), which is double of that in the Eleventh five-year plan. The construction sector is a major employment driver, being the second largest employer in the country, next only to agriculture. This is because of the chain of backward and forward linkages that the sector has with other sectors of the economy. About 250 ancillary industries such as cement, steel, brick, timber and other building materials are dependent on the construction industry. A unit increase in expenditure in this sector has a multiplier effect and the capacity to generate income as high as five times. A financial tool which helps the management of the company to handle all these elements together is Ratio analysis. Ratio analysis is done using company's Annual reports. Ratio analysis allows shareholders, creditors, Government and analysts to make an evaluation of firm's performance. Ratios provide an easy way to compare present performance with the past. Analysis of different financial ratios shows how the company performs in each department and helps to predict the expected future outcome using past and present performance. This ratio analysis would also help companies in further taking future decisions depending on various aspects such as taking up a new project or not, or expansion of the company etc. Therefore, it is essential that companies perform financial analysis periodically so as to take necessary strategies for their survival as well as performance improvement.

2. Litrature Review

The various research appears were calculated the ratios for various companies. Two of them are narrated here,

Ibn – Homaid N. T. [1] and Tijani I. A. (2015) focused on examining the role of Financial Management in determining the financial status of Construction Company in Saudi Arabia. This study presented a failure prediction model for the company based on the previous business financial data available. With the help of this study, it is anticipated that company will be able to prevent business failure by using the results obtained. In addition to it, the results would be able to direct the focus of the company on their certain non-performing financial areas. The methodology followed was to compare the performance of company with the

Construction Industry's average and hence concluding with whether companies are performing satisfactorily or not. It also stated that periodic evaluation of financial records of company is critical in successful completion of project and hence it advises that companies must evaluate their financial performance, so that necessary and appropriate strategies can be taken.

Mr. Gaurav Desai[2] and Prof. Abhay Joshi (2015) performed a case study analysis on how the tool ratio analysis can be used for analysing the financial performance of selective Indian construction companies by determining various financial ratios. The study is done on a three leading companies in India namely HCC, L&T and PUNJ LLOYD, which is registered as a joint stock company. It uses the financial ratio to analyse the financial record of the construction company to predict its financial health. The 17 financial ratios were classified under four ratios, i.e. Liquidity Ratio, Leverage Ratio, Asset management ratio Profitability Ratio Operating Ratio.

M. Sapri Pamulu[3], Stephen Kajewski, and Martin Betts studied the evaluation of financial ratios of Indonesian construction firms. The study is an extension of a larger study that is an attempt to identify the areas of strategic issues for Indonesian construction firms and develop an appropriate strategic management process for the firms to formulate, implement and evaluate. The research methodology adopted for this study includes data collection and analysis of Firm annual reports and financial statements. There are some methods and techniques of financial ratio analysis in evaluating corporate performance of construction firms. Modified traditional ratios such as Liquidity, Leverage, Activity and Profitability ratios are adapted from Construction Financial Management Association (CFMA) to support different purposes of analysis. When evaluating ratios, the results are compared with other firms in the same sector of industry. It is found in study that the firms are performing well financially. However, this performance can still be sustained if they are able to manage their maximum pace at which a company can grow revenue without depleting its financial resources.

Mohd Suberi Ab. Halim[4], Mastura Jaafar, Omar Osman and Md. Shariff Haniff, (2012) perform a case study of Malaysian Contracting firms. According to previous studies on the impact of financial factors in the failure of construction projects, poor financial management and lack of capital are the main determinants of construction failure. Failures in the construction industry are experienced not only by developing countries but also worldwide, and the failure scenario is present in the construction industry in Malaysia. The failure rate of construction companies in Malaysia is high. In this case study, 17 financial ratios were used to measure companies' financial performance. Six medium and large Bumiputera contractors were selected as case studies. This study found that most Bumiputera construction companies had insufficient cash capital to finance their construction work, experienced a low profit margin from construction projects and were highly dependent on debt capital to finance their construction costs. There was a lack of monitoring systems for cash flow and project costs. Without effective financial practices, construction companies are setting themselves up for failure. The overall findings from the case study show that most of the Bumiputera construction companies have insufficient cash capital to finance their construction work, low profit margins from construction projects and are highly dependent on debt capital to finance their construction costs. The lack of monitoring systems for company's cash flow and project costs were the main causes of failure.

Theofili Apostola[5], Georgios N. Aretoulis Panagiotis Papaioannou and Glykeria P. Kalfakakou, (2013), studied the use of composite factors composed from financial ratios of annual financial statements for studying the performance of construction enterprises. For this particular study, financial statements from five of the largest British construction companies listed among the twenty most profitable construction groups in United Kingdom were used. Through principal component analysis, it has been able to create three new factors replacing the nine selected financial ratios and explaining 85% of the total variance of the initial factors representing the performance and the financial status of the five construction companies.

3. Objective

1) To study the financial ratio of construction companies.
2) To study the financial position of leading WWTP construction companies in Maharashtra.
3) To compare results obtained from ratio analysis of the selected companies and highlighting the performance of each company.
4) To give suitable recommendations on the performance and suggesting them for improvement of company.

4. Project Methodology

In this project, the comparative financial analysis of WWTP construction companies of India is carried out. This analysis is done with the help of various financial ratios. These ratios will help in determining the performance of the companies with respect to the construction industry average of the country. Ratios provide an easy way to compare present performance with the past. The trend of performance of these companies for five years is evaluated. Ratio Analysis presents a failure prediction model for the company based on the previous business data available. It is anticipated that Construction Company will be able to prevent business failures by using the result from the research.

Further, the Ratio Analysis on the WWTP construction companies of India has been performed, and their performances have been compared based on the standard ratios and Industrial performances over the years. The selection of the companies is based on their total assets, for the construction firms in the field of Environmental Engineering particularly in WWTP, which are Gondwana Engineers Ltd., HNB Engineers Pvt. Ltd., and Laxmi Civil Engineering Services.

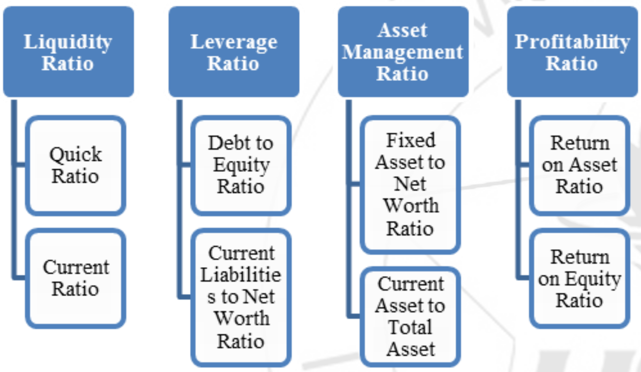
Company's performance has been compared on the basis of their financial performance taken from their balance sheets over the last 5 years. Their performances are then analysed based on the financial ratios considered and thereby interpretations and recommendations are given.

For a construction company, the fulfillment of short term obligations, their assets and liabilities lot depends on the availability of funds, which ultimately depends on the work, results and efficiency of the company. Interpretations, on the basis of ratio analysis has been made which gives a clear picture of the how the company is stable over the last 5 years, the risk involved with the company, and the way in which company is progressing. It overall showcases the causes of lack in financial performances of the company.

Based on the interpretations from the analysis made, recommendations to companies has been given, clearly stating how the company should work on their non-performance in certain areas, which would help them in taking certain measures for their future progress and stability.

5. Project Methodology

Classification of Ratios



A. Liquidity Ratio

- **Quick Ratio**

Generally, a quick ratio of 1 of 1 is considered to represent a satisfactory current financial condition. A company with a high value of Quick Ratio can suffer from a shortage of funds if it has slow paying, doubtful and long- duration outstanding debtors. On the other hand, a company with the low value of Quick Ratio may really be prospering and paying its current obligation in time if it has been turning over its inventories efficiently.

- **Current Ratio**

The Current Ratio is measure of the firm's short- term solvency.it indicates the availability of current assets in rupees for every rupee of current liability. A ratio of greater than one means that the firm has more current assets than current claims against them. As a conventional rule, a Current Ratio of 2 to 1 or more is considered satisfactory. Higher the Current Ratio, the greater the margin of safety; the larger the amount of current assets in relation to current liabilities more the firm's ability to meet its current obligation.

B. Leverage Ratio

- **Debt to Equity Ratio**

It clearly indicates that how much company is dependent on debt's to expand its business i.e. the proportion of equity and debt the company is using in financing its assets. Generally 2 to 1is considered as a standard Debt to Equity Ratio.

- **Current Liabilities to Net Worth Ratio**

A measure of the extent to which the enterprise is using creditor funds versus their own investment to finance the business. A ratio of 0.6 or higher may indicate inadequate owner investment or an extended accounts payable period. Care should be taken not to offend your vendors (creditors) to the extent it affects your ability to conduct day to day business.

C. Asset Management Ratio

- **Fixed Asset to Net Worth Ratio**

Fixed Asset to Net Worth Ratio measures the amount of company's worth in fixed assets. The standard Fixed Asset to Net Worth Ratio generally adopted is 0.65

- **Current Asset to Total Asset Ratio**

It indicates the extent of total funds invested for the purpose of working capital and throws light on the importance of current assets of a firm. It should be worthwhile to observe that how much of that portion of total assets is occupied by the current assets, as current assets are essentially involved in forming working capital and also take an active part in increasing liquidity. This ratio depicts the asset which the company is holding for less than a year like inventories and so on. The standard adopted is 0.55 or less.

D. Profitability Ratio

- **Return on Asset Ratio**

It is an indicator of how profitable a company is relative to its total assets. ROA gives an idea as to how efficient management is at using its assets to generate earnings. Calculated by dividing a company's annual earnings by its total assets, ROA is displayed as a percentage. Sometimes this is referred to as "return on investment". Generally 0.058 (i.e. 5.80% is considered as a standard level.

- **Return on Equity Ratio**

Return on Equity indicates how well the firm has the resources of company. This ratio is one of the most important relationships in financial analysis. The earning of a satisfactory return is the most desirable objective of a business. The returns on owner's equity of the company should be compared with ratios for other similar companies and the industry average. This will reveal the relative performance and strength of the company in attracting future investments. Generally 0.128 (i.e. 12.80%) is considered as a standard level.

6. Analysis and Interpretation of Results

A. Liquidity Ratio

- **Quick Ratio**

Company Name	FY 1	FY 2	FY 3	FY 4	FY 5
Gondwana	1.872	2.005	1.346	1.270	1.300
HNB	1.334	0.902	0.749	1.017	0.903
Laxmi	1.469	1.294	0.966	1.141	0.914

Quick Ratio for these companies are fine and required to maintain it further where they make themselves capable of meeting short term cash requirements

- **Current Ratio**

Company Name	FY 1	FY 2	FY 3	FY 4	FY 5
Gondwana	1.921	2.069	1.398	1.310	1.359
HNB	1.775	1.704	1.511	1.661	1.415
Laxmi	1.657	1.408	1.371	1.307	1.269

Current Ratio of Gondwana and HNB are close to standard ratio, whereas Laxmi needs to work on the current assets so as to ease in meeting the short term obligations.

B. Leverage Ratio

- **Debt to Equity Ratio**

Company Name	FY 1	FY 2	FY 3	FY 4	FY 5
Gondwana	3.167	3.117	3.430	3.804	2.691
HNB	1.805	1.877	2.079	1.983	2.271
Laxmi	1.884	2.156	2.533	2.804	3.247

Consistency in Debt to Equity Ratio has been observed in all of the companies, but required to reduce debts to minimize the risk handled in meeting the obligations and expansion of the business.

- **Current Liabilities to Net Worth Ratio**

Company Name	FY 1	FY 2	FY 3	FY 4	FY 5
Gondwana	1.586	1.481	2.350	2.714	1.631
HNB	0.722	0.789	0.987	0.939	1.220
Laxmi	0.717	1.018	1.303	1.527	1.862

HNB has been adequately using its own investments as compared to Gondwana and Laxmi.

C. Asset Management Ratio

- **Fixed Asset to Net Worth Ratio**

Company Name	FY 1	FY 2	FY 3	FY 4	FY 5
Gondwana	0.024	0.034	0.052	0.064	0.067
HNB	0.317	0.352	0.377	0.213	0.128
Laxmi	0.086	0.144	0.208	0.243	0.270

Fixed Asset to Net-Worth Ratio shows that all the companies are faring well in this area.

- **Current Asset to Total Asset Ratio**

Company Name	FY 1	FY 2	FY 3	FY 4	FY 5
Gondwana	0.962	0.983	0.958	0.935	0.824
HNB	0.697	0.703	0.702	0.770	0.742
Laxmi	0.630	0.665	0.705	0.712	0.728

Current Asset to Total Asset Ratio shows that all companies are highly using current assets for forming working capital.

D. Profitability Ratio

- **Return on Asset Ratio**

Company Name	FY 1	FY 2	FY 3	FY 4	FY 5
Gondwana	0.051	0.071	0.089	0.059	0.059
HNB	0.022	0.032	0.016	0.061	0.089
Laxmi	0.156	0.096	0.104	0.083	0.097

Return on Assets Ratio for the companies have been good, as the companies are able to get adequate amount of returns on the amount invested on assets.

- **Return on Equity Ratio**

Company Name	FY 1	FY 2	FY 3	FY 4	FY 5
Gondwana	0.160	0.221	0.307	0.225	0.159
HNB	0.040	0.060	0.034	0.122	0.202
Laxmi	0.295	0.208	0.264	0.233	0.315

Gondwana and Laxmi having Return on Equity Ratio represents that a company is able to give provide good dividends to their shareholders whereas HNB having very inconsistent performance in this aspect.

7. Conclusions and Recommendations

By ratio analysis, it can be concluded that company's need to manage their finances in better way to cope up the prevailing external risks. Except for quick ratio, almost all three companies are trailing in one or the other factors and their performance is not consistent. In addition, ceiling limits put by Reserve Bank of India (For single borrower, it is 15-20% and for Group borrowers, it is 40-50%) add to the constraints for obtaining loans from financial institutions. For better future performances and forecasting, and analyzing the current performance of the company, it is important that company to perform ratio analysis periodically, which would help them to take timely measures as per the prevailing market and industry circumstances.

The recommendations based on results are as follows:

1) To improve **Quick Ratio**:
   i. It is important for companies to pay off their current liabilities as quickly as possible.
   ii. Also, by reducing the collection period, which would then have fast rolling in of cash to the companies.
   iii. Sweep accounts are also one mode, where companies using sweep accounts will be able to earn the interest on the idle cash by keeping it on the sweeping accounts.
2) For improving **Current Ratio**, management of company needs to focus on various strategies including its current assets and liabilities and assets and has to be monitored throughout the year.
3) It is important for companies to not to aim either for too high, or too low **Debt to Equity Ratio**. As standard Debt to Equity Ratio mentioned, the companies should float around it or be on the lower side, otherwise companies may face hard time in balancing their funds and may either go for higher debt interests and liabilities, which would rather invite higher risks and instability.
4) With reference to **Current Liabilities to Net Worth Ratio**, HNB has been adequately using its own investments to finance business, whereas Gondwana and Laxmi has been extensively using creditor's funds which reflect that both companies are facing problems in financing their businesses using their own funds.
5) **Fixed Asset to Net-Worth Ratio** shows that all the companies are faring well in this area since their reliance on fixed asset is less. Since construction industry is known as capital intensive where there are large fixed

asset in terms of machineries, equipment's and formwork, the three companies are faring well.

6) **Current Asset to Total Asset Ratio** shows that all companies are highly using current assets for forming working capital. Expecting to be continued the same in future.
7) For increasing **Returns on Asset** can be to regularly monitoring the expenses on assets.
8) The asset turnover can be a factor to improve the **Return on Equity Ratio**, where the assets management and their returns are closely monitored to improve the company's ROE ratio.

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